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PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1-9. (Cancelled).

1 10. (Currently amended). A coated medical device comprising:  
2 an inflatable balloon having a base material, a hydrophilic material  
3 posited on the base material and a balloon bioactive material posited on said base  
4 material the hydrophilic material.

1 11. (Currently amended). The coated medical device according to claim 10,  
2 further comprising an implantable stent including a stent base material layer and a  
3 stent bioactive material posited on the stent base material layer, wherein said stent  
4 is disposed around said balloon.

1 12. (Previously presented). The coated medical device according to claim 10,  
2 wherein the balloon bioactive material posited on the balloon base material is  
3 lipophilic.

1 13. (Previously presented). The coated medical device according to claim 11,  
2 wherein the balloon bioactive material is lipophilic and extends beyond the ends of  
3 the stent disposed around said balloon.

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1 14. (Currently amended). The medical device according to claim 11, wherein the  
2 stent base material layer comprises at least one of: a biocompatible metal, a non-  
3 biocompatible polymer and a biodegradable polymer~~stainless steel, tantalum,~~  
4 ~~titanium, nitinol, gold, platinum, inconel, iridium, silver, tungsten, or another~~  
5 ~~biocompatible metal, or alloys of any of these, carbon or carbon fiber, cellulose~~  
6 ~~acetate, cellulose nitrate, silicone, polyethylene terephthalate, polyurethane,~~  
7 ~~polyamide, polyester, polyorthoester, polyanhydride, polyether sulfone,~~  
8 ~~polycarbonate, polypropylene, high molecular weight polyethylene,~~  
9 ~~polytetrafluoroethylene, or another biocompatible polymeric material, or mixtures~~  
10 ~~or copolymers of these; polylactic acid, polyglycolic acid or copolymers thereof, a~~  
11 ~~polyanhydride, polycaprolactone, polyhydroxybutyrate valerate or another~~  
12 ~~biodegradable polymer, or mixtures or copolymers of these; a protein, an~~  
13 ~~extracellular matrix component, collagen, fibrin or another biologic agent; or a~~  
14 ~~suitable mixture of any of these.~~

1 15. (Cancelled).

1 16. (Currently amended). The medical device according to claim 10, wherein  
2 the base material layer comprises at least one of: irradiated polyethylene,  
3 polyethylene terephthalate, polyurethane, polyamide, polyester, polyorthoester,  
4 polyanhydride, polyether sulfone, polycarbonate, polypropylene, high molecular  
5 weight polyethylene, polytetrafluoroethylene, or another a biocompatible  
6 polymeric material, or mixtures or copolymers of these; polylactic acid,  
7 polyglycolic acid, or copolymers of polylactic acid and polyglycolic acid~~thereof, a~~  
8 ~~polyanhydride, polycaprolactone, polyhydroxybutyrate valerate or another a~~  
9 ~~biodegradable polymer, PEBA~~X, and nylon, or mixtures or copolymers of these  
10 materials.

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1 17. (Cancelled).

1 18. (Cancelled).

1 19. (Currently amended). The coated medical device according to claim 10,  
2 wherein the balloon-bioactive material layer comprises at least one of: paclitaxel,  
3 a taxane or other paclitaxel analogue; estrogen or estrogen derivatives; heparin or  
4 another thrombin inhibitor, hirudin, hirulog, argatroban, D-phenylalanyl-L-poly-L-  
5 arginyl chloromethyl ketone, or another antithrombogenic agent, or mixtures  
6 thereof; urokinase, streptokinase, a tissue plasminogen activator, or another  
7 thrombolytic agent, or mixtures thereof; a fibrinolytic agent; a vasospasm inhibitor;  
8 a calcium channel blocker, a nitrate, nitric oxide, a nitric oxide promoter or another  
9 vasodilator; an antimicrobial agent or antibiotic; aspirin, ticlopidine or another  
10 antiplatelet agent; vascular endothelial growth factor (VEGF) or analogues thereof;  
11 colchicine or another antimitotic, or another microtubule inhibitor; cytochalasin or  
12 another actin inhibitor; a remodeling inhibitor; deoxyribonucleic acid, an antisense  
13 nucleotide or another agent for molecular genetic intervention; a cell cycle inhibitor  
14 (such as the protein product of the retinoblastoma tumor suppressor gene, or  
15 analogues thereof); GP IIb/IIIa, GP Ib-IX or another inhibitor or surface glycoprotein  
16 receptor; methotrexate or another antimetabolite or antiproliferative agent; an anti-  
17 cancer chemotherapeutic agent; dexamethasone, dexamethasone sodium  
18 phosphate, dexamethasone acetate or another dexamethasone derivative, or  
19 another anti-inflammatory steroid; prostaglandin, prostacyclin or analogues thereof;  
20 an immunosuppressive agent (such as cyclosporine or rapamycin); an antibiotic  
21 (such as streptomycin), erythromycin or vancomycin; dopamine, bromocriptine  
22 mesylate, pergolide mesylate or another dopamine agonist;  $^{60}\text{Co}$ ,  $^{192}\text{Ir}$ ,  $^{32}\text{P}$ ,  $^{111}\text{In}$ ,  
23  $^{90}\text{Y}$ ,  $^{99m}\text{Tc}$  or another radiotherapeutic agent; iodine-containing compounds, barium-

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24 containing compounds, gold, tantalum, platinum, tungsten or another heavy metal  
25 functioning as a radiopaque agent; a peptide, a protein, an enzyme, an extracellular  
26 matrix component, a cellular component or another biologic agent; captopril,  
27 enalapril or another angiotensin converting enzyme (ACE) inhibitor; ascorbic acid,  
28 alphatocopherol, superoxide dismutase, deferoxamine, a 21-aminosteroid (lasaroid)  
29 or another free radical scavenger, iron chelator or antioxidant; angiopeptin; a <sup>14</sup>C-,  
30 <sup>3</sup>H-, <sup>131</sup>I-, <sup>32</sup>P- or <sup>36</sup>S-radiolabelled form or other radiolabeled form of any of the  
31 foregoing; or a mixture of any of these.

1 20. (Cancelled).

1 21. (Cancel)

1 22. (Currently amended) The coated medical device of claim 2410, where the  
2 layer comprising the hydrophilic material is a slip coating layer.

1 23. (Currently amended) The coated medical device of claim 10, where the  
2 balloon bioactive material is lipophilic and comprises paclitaxel, a taxane or other  
3 paclitaxel analogue, and where the coated medical device further comprises a  
4 ~~hydrophilic material posited between the base material and the balloon bioactive~~  
5 ~~material~~.

1 24. (Previously presented). A coated medical device comprising:  
2 an inflatable balloon having an expandable outer surface,  
3 a hydrophilic material posited on the expandable outer surface; and  
4 a lipophilic balloon bioactive material posited on the expandable outer  
5 surface.

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1 25. (Previously presented). The coated medical device of claim 24, where the  
2 lipophilic balloon bioactive material comprises a bioactive selected from the group  
3 consisting of: an immunosuppressive agent and a compound that inhibits arterial  
4 smooth muscle cell proliferation.

1 26. (Previously presented). The coated medical device of claim 24, where the  
2 balloon bioactive material comprises paclitaxel.

1 27. (Withdrawn). A method of manufacturing a coated medical device comprising:  
2 providing an inflatable balloon having inflated and deflated  
3 configurations;  
4 inflating the inflatable balloon, the inflatable balloon comprising a  
5 balloon base material;  
6 depositing a hydrophilic layer on the balloon base material; and  
7 depositing a bioactive material on the hydrophilic layer.

1 28. (Withdrawn). The method of claim 27, where the bioactive material is  
2 lipophilic.

1 29. (Withdrawn). The method of claim 27, where the hydrophilic layer is  
2 deposited on the balloon base material while the inflatable balloon is in the inflated  
3 configuration.

1 30. (Withdrawn). The method of claim 27, where the bioactive material is  
2 deposited while the inflatable balloon is in the inflated configuration.

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1 31. (Withdrawn). The method of claim 27, where the balloon base material  
2 comprises at least one of irradiated polyethylene, polyethylene terephthalate,  
3 polyurethane, polyamide, polyester, polyorthoester, polyanhydride, polyether  
4 sulfone, polycarbonate, polypropylene, high molecular weight polyethylene,  
5 polytetrafluoroethylene, or another biocompatible polymeric material, or mixtures  
6 or copolymers of these; polylactic acid, polyglycolic acid or copolymers thereof, a  
7 polyanhydride, polycaprolactone, polyhydroxybutyrate valerate or another  
8 biodegradable polymer, PEBAK, nylon or mixtures or copolymers of these.

Please enter the following new claims:

1 32. (New) A coated medical device comprising:  
2 an inflatable balloon having an expandable outer surface,  
3 a hydrophilic material posited on the expandable outer surface; and  
4 a lipophilic balloon bioactive material posited on the expandable outer  
5 surface; and  
6 an implantable stent including a stent base material disposed around the  
7 balloon.

1 33. (New). The coated medical device according to claim 32, wherein the  
2 stent further comprises a stent bioactive material posited on the stent base  
3 material.

1 34. (New) The coated medical device according to claim 33, wherein the  
2 stent bioactive material is selected from the group consisting of: an  
3 immunosuppressive agent and a compound that inhibits arterial smooth muscle cell  
4 proliferation.